

Application No.: 09/586,525

Docket No.: JCLA5827-R3

**REMARKS****Present Status of Patent Application**

Favorable reconsideration of this application, as presently amended, is respectfully requested. Claims 1-5 and 7-14 are now pending in this application, in which claims 1 and 7 have been amended. This application is a Continuation of patent application Serial No. 09/586,525, filed on June 2, 2000, now pending. Reconsideration is respectfully requested.

In the previous outstanding official Office Action dated April 13, 2004, claims 1, 5, 7 and 11-13 were rejected under 35 USC 103(a) as being unpatentable over Lan et al. (US-6,034,427, hereinafter Lan); claims 2-4, 8-10 and 14 were rejected under 35 USC 103(a) as being unpatentable over Lan in view of Admitted Prior Art (hereinafter APA); and claims 4 and 10 were rejected under 35 USC 103(a) as being unpatentable over Lan in view of Katchmar et al. (US-6,194,782, hereinafter Katchmar).

In rejecting the above claims, the Examiner stated that Figure 2F of Lan clearly depicts bonding pads 224A are arranged in a central area of the package substrate, with respect to the first mounting pads which surround the second mounting pads. Furthermore, the Examiner stated that although Lan teach that the bonding pads in the electrical circuit of a package are all electrically interconnected to external sources, and thus the first and second mounting pads are electrically contacting with corresponding bumps of a chip. The Examiner further stated that the broad recitation of the claim does not require the mounting pads to direct contact with corresponding bumps of a chip.

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Applicants have amended independent claims 1 and 7 to recite "the first and second mounting pads can be directly attached to corresponding bumps of a chip". Applicants respectfully submit that Lan substantially fails to show that the bonding pads 224A (of FIG. 2B, 2E, and 2F) which the Office Action deems to be equivalent to the second mounting pads of the claimed invention, can be directly attached to the corresponding pads of the chip as required by the amended independent Claims 1 and 7, instead Lan substantially teaches that the bonding pads 224A (as shown in FIGS. 2B, 2E and 2F) are for attaching the bonding wires 227A (please see col. 7, lines 21-22). Accordingly, Applicants respectfully submit that Lan cannot meet independent claims 1 and 7 in this regard.

Further, because Lan substantially teaches that the bonding pads 224A are for attaching to the bonding wires 227A, and the pads of the chip is electrically connected with the bonding wires 227A, and therefore the bonding pads 224A must be arranged peripheral or laterally adjacent to the chip. In other words, because the bonding pads 224A must be arranged laterally adjacent to the chip, and therefore the bonding pads 227A cannot possibly be directly attached to the pads of the chip. Accordingly, Lan cannot possibly meet the amended claims 1 and 7 in this regard.

Furthermore, because the bonding pads 224A in Lan must be arranged laterally adjacent to the chip, and therefore the bonding pads 227A occupy significant space on the package substrate and thereby rendering the size of the package substrate larger and also limiting the further integration of the device. Accordingly, the Lan patent cannot possibly render the claimed invention obvious to one skilled in the art.

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Furthermore, Applicants respectfully disagree and would like to point out that because Lan substantially teaches improvement using wire bonding scheme for electrically connecting the chip with the package substrate and therefore one skilled in the art will not be motivated to modify the package structure of Lan in a manner suggested by the office action to achieve the claimed invention. Further, the disclosure of the material of the insulative layer and structure thereof, patterned circuit layer and fabrication thereof, still cannot cure the specific deficiencies of Lan.

For at least the foregoing reasons, it is believed that all pending claims 1-5 and 7-14 are in proper condition for allowance. If the Examiner believes that a conference would be of value in expediting the prosecution of this application, he is cordially invited to telephone the undersigned counsel to arrange for such a conference.

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Respectfully submitted,  
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